

PHYTOMORPHOLOGY

AN INTERNATIONAL JOURNAL OF PLANT MORPHOLOGY

OFFICIAL ORGAN OF
THE INTERNATIONAL SOCIETY OF PLANT MORPHOLOGISTS

OK
1
P586

VOLUME I

1951

NUMBERS 1-4

EDITED BY

P. Maheshwari
University of Delhi
Delhi 8, India

WITH THE CO-OPERATION OF

I. W. Bailey

Harvard University
Cambridge 38, Mass., U.S.A.

A. S. Foster

University of California
Berkeley, Calif., U.S.A.

C. Y. Chang

National University of Peking
Peking, China

H. D. Gordon

Victoria University College
Wellington, New Zealand

E. J. H. Corner

Botany School
Cambridge, England

M. O. P. Iyengar

University of Madras
Madras, India

A. J. Eames

Cornell University
Ithaca, N.Y., U.S.A.

L. V. D. Pijl

The University
Bandung, Indonesia

A. Fernandes

Instituto Botanico
Coimbra, Portugal

M. V. Roscoe

McGill University
Montreal, Canada

Rudolf Florin

Hortus Bergianus
Stockholm, Sweden

C. W. Wardlaw

University of Manchester
Manchester, England

Annual subscription : Rs. 30 (India) ; £2 10s (Foreign)

CONTENTS

PAGE

The protrusion of the connective beyond the anther and its bearing on the evolution of the stamen	JOHN PARKIN	1
A contribution to the morphology and embryology of <i>Cuscuta hyalina</i> Roth. and <i>C. planiflora</i> Tenore	B. TIAGI	9
Organization in plants	C. W. WARDLAW	22
The relationship of the Caytoniales	T. M. HARRIS	29
The contribution by the gametophyte to classification of the homo- sporous ferns	ALMA G. STOKEY	39
Certain new members of the Volvocales from Indian soils	A. K. MITRA	58
Chromosome morphology of some species of <i>Lilium</i> and <i>Fritillaria</i> P. N. MEHRA AND P. KACHROO		64
The use and the abuse of anatomical data in the study of phylogeny and classification	I. W. BAILEY	67
The embryo sac of <i>Salix</i>	P. MAHESHWARI AND S. K. ROY	70
Contributions to the embryology of the Liliaceae. V—Life history of <i>Amianthium muscaetoxicum</i> Walt.	A. M. EUNUS	73
Development of the embryo in some species of the Papilionaceae M. ANANTASWAMY RAU		80
The male and female gametophytes of angiosperms—an interpretation E. BATTAGLIA		87
The leguminous seed	E. J. H. CORNER	117
Review (of " Problems of cytology and evolution in the Pteridophyta ") P. MAHESHWARI		151
The endosperm in some of the Papilionaceae	M. ANANTASWAMY RAU	153
Studies in the family Orobanchaceae. III. A contribution to the em- bryology of <i>Orobanche cernua</i> Loeffl. and <i>O. aegyptiaca</i> Pers.	B. TIAGI	158
Die Grundachse von <i>Alstroemeria</i> und die Einheit ihres morpholo- gischem Typus mit dem der echtem Liliaceen	FRANZ BUXBAUM	170
On the morphology of some tropical plants: <i>Gloriosa</i> , <i>Bougainvillea</i> , <i>Honckenya</i> and <i>Rottboelia</i>	L. VAN DER PIJL	185
The shoot apex in gymnosperms	MARION A. JOHNSON	188
Embryology of <i>Oxyspora paniculata</i> DC	K. SUBRAMANYAM	205
A morphological and cytological study of <i>Cystopus</i> on <i>Mollugo cerviana</i> K. M. SAFEEULLA AND M. J. THIRUMALACHAR		212
On the structure and reproduction of <i>Pleodorina sphaerica</i> Iyengar M. O. P. IYENGAR AND K. R. RAMANATHAN		215
The involution mechanism in leaves of certain xeric grasses LORA M. SHIELDS		225
Review (of " Introduction to the embryology of Angiosperms ") E. J. H. CORNER		242
Review (of " Botany — a textbook for colleges ")	B. M. JOHRI	243
Review (of " Morphology and taxonomy of Fungi ")	P. MAHESHWARI	243

INDEX OF AUTHORS

	PAGE
ANANTASWAMY RAU, M. Development of the embryo in some species of the Papilionaceae	80
— The endosperm in some of the Papilionaceae	153
BAILEY, I. W. The use and the abuse of anatomical data in the study of phylogeny and classification	67
BATTAGLIA, E. The male and female gametophytes of angiosperms — an interpretation	87
BUXBAUM, F. Die Grundachse von <i>Alstroemeria</i> und die Einheit ihres morphologischen Typus mit dem der echtem Liliaceen	170
CORNER, E. J. H. The leguminous seed	117
— An introduction to the embryology of angiosperms (Review)	242
EUNUS, A. M. Contributions to the embryology of the Liliaceae. V— Life history of <i>Amianthium muscaetoxicum</i> Walt.	73
HARRIS, T. M. The relationships of the Caytoniales	29
IYENGAR, M. O. P. and RAMANATHAN, K. R. On the structure and reproduction of <i>Pleodorina sphaerica</i> Iyengar	215
JOHNSON, MARION A. The shoot apex in gymnosperms	188
JOHRI, B. M. Botany — a textbook for colleges (Review)	243
KACHROO, P. (see Mehra, P. N.)	
MAHESHWARI, P. Problems of cytology and evolution in the Pteridophyta (Review)	151
— Morphology and taxonomy of Fungi (Review)	243
— and ROY, S. K. The embryo sac of <i>Salix</i>	70
MITRA, A. K. Certain new members of the Volvocales from Indian soils	58
MEHRA, P. N. and KACHROO, P. Chromosome morphology of some species of <i>Lilium</i> and <i>Fritillaria</i>	64
PARKIN, J. The protrusion of the connective beyond the anther and its bearing on the evolution of the stamen	1
PIJL, L. VAN DER. On the morphology of some tropical plants: <i>Gloriosa</i> , <i>Bougainvillea</i> , <i>Honckenya</i> and <i>Rottboelia</i>	185
ROY, S. K. (see Maheshwari, P.)	
STOKEY, ALMA G. The contribution by the gametophyte to classification of the homosporous ferns	39
SUBRAMANYAM, K. Embryology of <i>Oxyspora paniculata</i> DC	205
SAFEEUALLA, K. M. and THIRUMALACHAR, M. J. A morphological and cytological study of <i>Cystopus</i> on <i>Mollugo cerviana</i>	212
SHIELDS, LORA M. The involution mechanism in leaves of certain xeric grasses	225
THIRUMALACHAR, M. J. (see Safeeulla, K. M.)	
TIAGI, B. A contribution to the morphology and embryology of <i>Cuscuta hyalina</i> Roth. and <i>Cuscuta planiflora</i> Tenore	9
— Studies in the family Orobanchaceae. III. A contribution to the embryology of <i>Orobanche cernua</i> Loeffl. and <i>O. aegyptiaca</i> Pers.	158
WARDLAW, C. W. Organization in plants	22